

QUANTITATIVE CONSIDERATIONS OVER THE TAPES OF GIACINTO SCELSI¹

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INTRODUCTION

THE AUDIO DOCUMENTS PRESERVED in the Scelsi Archive — based in Rome, in the headquarters of the Fondazione Isabella Scelsi — constitute an extremely important source of musicological investigation to discover the compositional methodologies used by the late composer Giacinto Scelsi (1905–1988), most of which are not quite understood today. The digital recovery of the complete archive of sound documents is an ongoing work regarding several hundred tapes and around 80 aluminum-lacquer discs which have been used directly by the composer in his compositional processes. Scelsi developed a technique which consisted in recording long piano improvisations engraving them on wax discs first, then on magnetic tape as soon as it became widely available.

¹. This work has been funded in full by the Fondazione Isabella Scelsi and actively promoted and supported by its President Nicola Sani. Mauro Tosti Croce, Coordinator of the archive of the Fondazione, has substantiated this work providing valuable scientific insight and suggestions concerning the archival procedures and techniques. Barbara Boido, member of the board of the Fondazione and long-standing friend of the late Scelsi, has provided a large amount of historical information concerning habits, machines, locations, and much more which proved to be extremely useful. Last but not least, most of the present work is based on Friedrich Jaecker's findings, so we would like to take this opportunity to thank him for the exceptional contributions he has made and continues to make to the general knowledge of Scelsi's production. The first year of this digitization work has been carried out in close collaboration with the late Piero Schiavoni (Studio Coltempo, Rome). Since the beginning of 2007, the Fondazione Isabella Scelsi has been closely collaborating with the Istituto Centrale dei Beni Sonori e Audiovisivi (the Italian National Sound Archive) and this specific project has been energetically supported by its Director Massimo Pistacchi. The archival work is being carried out under the expert and attentive supervision of Bruno Quaresima and Carlo Cursi.

The digital transfer process of the tapes residing in Scelsi's private archive was initiated by the Fondazione Isabella Scelsi in 2006 and has currently reached tape no. 339, which is slightly less than half of what is supposed to be the whole legacy of the composer. This is still a work in progress but many researchers have used it already for projects that have produced several significant results to date. Among these, a few lists of «relevant fragments» have been compiled by experts of Scelsi's music by manually listening to each and every tape, and these lists are often used by researchers as references for further research. However, while extremely useful these lists provide some information on a fairly limited compass of tapes and fragments: most of the tapes carry materials that are yet to be discovered/assessed/understood. Times are ripe, then, to begin a quantity-driven investigation within the tape archive in order to extract further information from it — information that is not immediately evident because it is difficult to obtain with other methodological approaches.

This paper will illustrate some among the possible investigation paths and propose viable research projects for the future.

THE BARE MATERIALS

Giacinto Scelsi's tape legacy is said to count around 700 tapes. This total number does not have a precise figure as of yet because nobody has counted them in a definitive way and because all of Scelsi's properties are currently being systematically re-ordered and investigated — and this slow, mandatorily finicky, scrutinizing process will take indeed a few more years to be completed. However, the «700» number seems to be a safe ballpark figure and we will start from this (approximate) total amount our numerical journey into Scelsi's tape archive.

One of the main reasons which do not allow a precise complete numbering is that only a fraction of these tapes has been transferred to date. This fraction increases by the day because the tape transfer is an ongoing process, and as of the writing of this paper it has reached number 339 (ca. 48% of the whole archive, just under half of it). However, since all tapes undergo a lengthy post-production process in which they get non-destructively edited and described before entering the public database, currently only 273 out of these 339 are publicly available and searchable. FIG. 3.1 illustrates the current status.

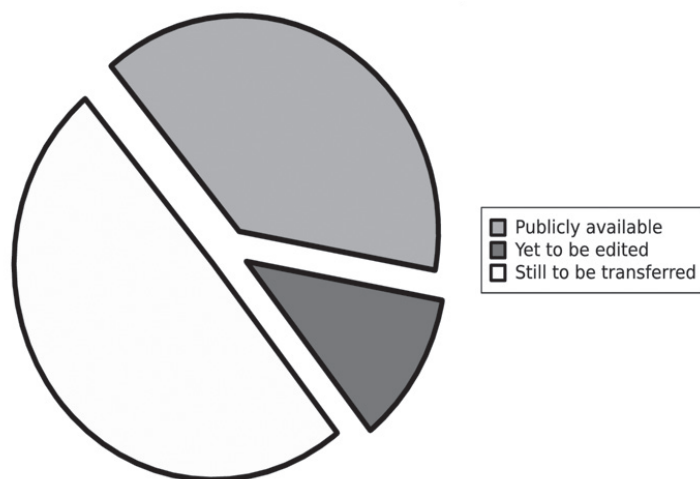


FIG. 3.1: Giacinto Scelsi's tape archive numbers.

We will base all further investigation on this latter number (273) because this is the number of tapes that has been available to date for musicological investigation. These tapes have been available for over a couple of years now and have been extensively browsed, listened to and analyzed by a consistent number of musicologists, musicians and other experts. As such, they constitute a «well-known» corpus that will still provide a lot of surprising quantitative information to all researchers. This is what we call the «public corpus».

THE JAECKER CATALOGUE

It is a well known fact² that Scelsi's tape archive carries very scarce meta-data information about itself: Scelsi used tapes as sketchpads and, as such, they do not carry reliable documentation (such as dates, contents, etc.) on their boxes. Besides, there is no evidence that the tapes effectively contain what the

². See BERNARDINI, Nicola. 'Il recupero dei nastri di Giacinto Scelsi', in: *Atti della 5a Biennale del Restauro Audio*, Treviso, Mirage, 2006, pp. ???; ID. 'Recovering Giacinto Scelsi's Tapes', in: *Proceedings of the International Computer Music Conference 2007*, Copenhagen, International Computer Music Association, 2007, pp. 169-172, <<http://quod.lib.umich.edu/i/icmc/bbp2372.2007.037/--recovering-giacinto-scelsis-tapes?view=image>>; ID. – PELLEGRINI, Alessandra Carlotta. 'The Multimedia Archive of the Fondazione Isabella Scelsi', in: *Multimedia for Cultural Heritage*, edited by Costantino Grana and Rita Cucchiara, Berlin, Springer, 2012 (Communications in computer and information science, 247), pp. 176-191.

boxes describe: Scelsi used to recycle tapes and boxes, so we cannot rely on their coupling. This is not to say that this information is not interesting and/or it should not be used, but just to warn all researchers against relying on that to make any assumption about actual tape content.

In this situation, a (first) extremely important systematic recognition of the public corpus has been carried out by musicologist Friedrich Jaecker who has listened to most tapes available to him at a given time and who created an annotated summary of the contents of whatever he would recognize by ear upon listening³. Since many other later musicological studies have taken Jaecker's work as a starting point for further investigation, it is interesting to gather a few numbers about this initial study. In this paper we will use the 9.II.2010 version of Jaecker's catalog.

Jaecker's catalog is divided in four sections:

1. Identified works,
2. Recording of Scelsi's works,
3. Spoken texts, and
4. Protocols.

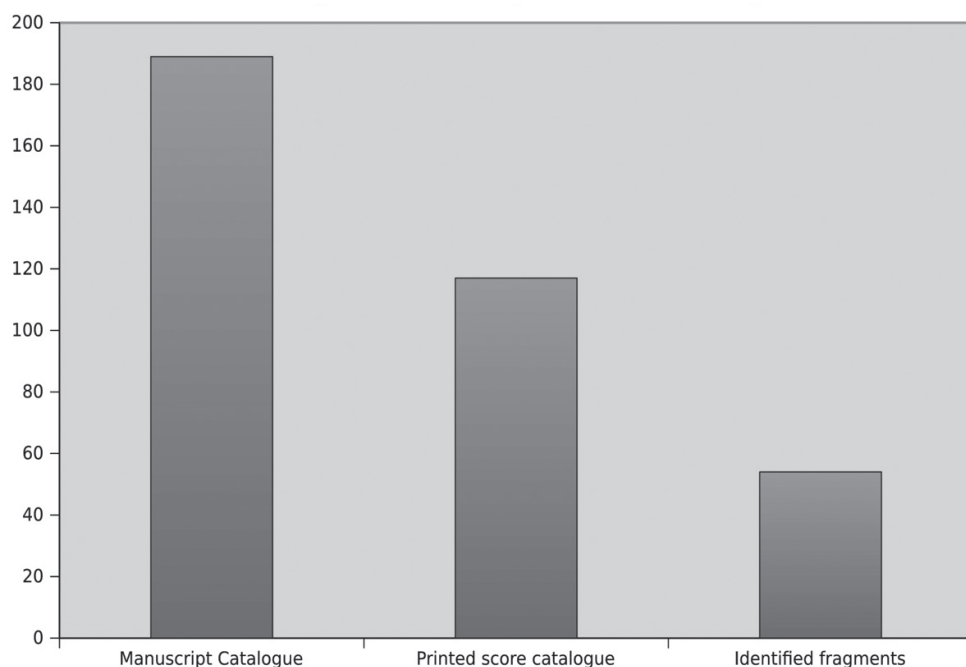


FIG. 3.2: Works identified by Friedrich Jaecker.

³. See JAECKER, Friedrich. *I nastri di Giacinto Scelsi*, unpublished catalogue, Cologne-Rome, 2010.

The first section carries some extremely important information: the number of Scelsi's works that can be safely identified by listening to them on tape. There are 57 such tapes while the rest of the 174 tapes analyzed by Jaecker carry unidentified material. This means that approximately two-thirds of these tapes are uncharted territory, material that still awaits for explanation and placing (see FIG. 3.3). This is not to belittle Jaecker's work, which represent a most formidable endeavor of systematic musicology; rather, considering that Jaecker is one of the most profound connoisseurs of Scelsi's compositions, we can safely assume that this is the best result that can be achieved «by ear» with state of the art knowledge about this corpus: any further advance will need some special tooling (be it from information technology or from whatever else) to be carried out.

Another interesting figure is the actual number of works identified in these tapes, because the correspondence is not 1:1.

There are 54 such works, which perhaps should be contrasted against the current number of known manuscripts works produced by Scelsi during his life and present in the archive (189), or the number of titles which exist in print and listed in the archive (117) (see FIG. 3.2) — even though this comparison is somewhat amiss because only the second period of Scelsi's production should be taken into consideration (apparently, tapes were used since the beginning of the 50's onwards). However, if we keep in mind that very little pre-compositional material has been found other than the tapes themselves and the re-edited parts produced with the help of copists, we must take the challenge of understanding the rest of the tape material very seriously because these *are* probably the only material available.

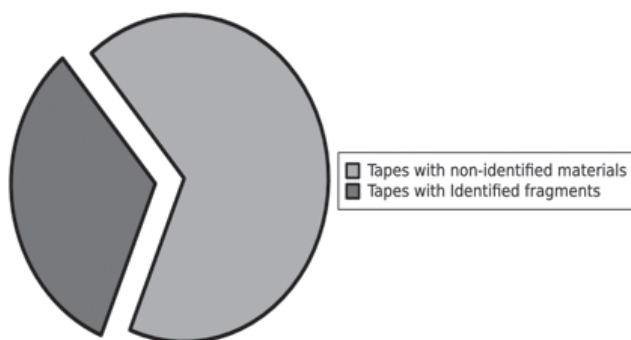


FIG. 3.3: Tapes containing works identified by Jaecker.

Word Occurrences in Descriptions

Yet another interesting quantity is the occurrences of words in Jaecker’s descriptions in Section 4. While these descriptions are written in a natural language (german), they are quite consistent throughout the document and as such they can be easily counted.

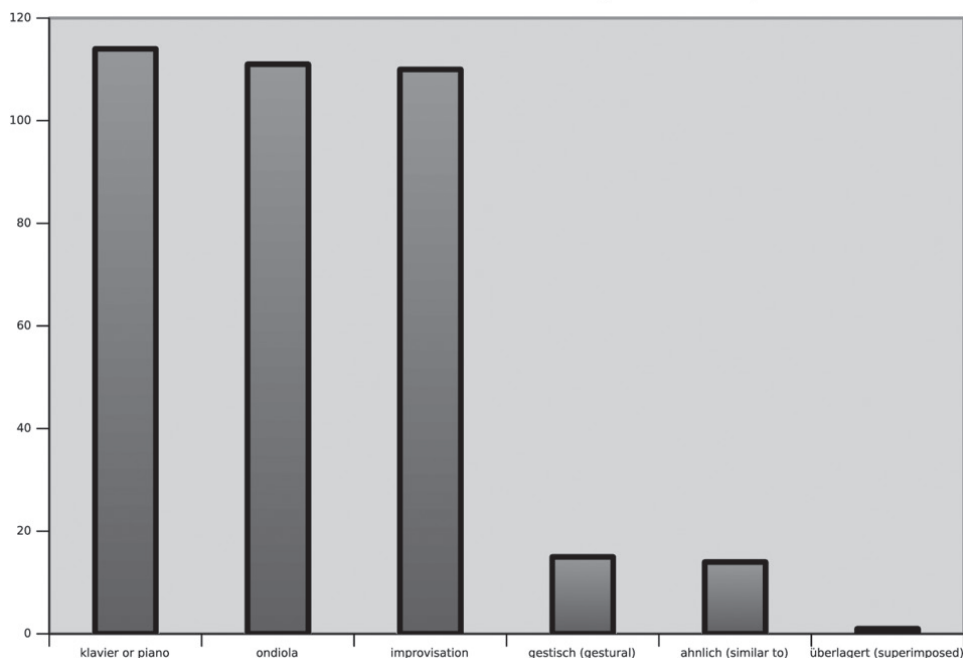


FIG. 3.4: Occurrences of terms in Jaecker’s document.

FIG. 3.4 plots some of the occurrences: most notable are the declinations of the word «klavier» or «piano» (114), followed by «ondiola» (111), «improvisation» (110). Albeit in much smaller numbers, the words «gestisch» (gestural, 15) and «ähnlich» (similar to, 14) are interesting because of their meaning in this specific context.

OBJECTIVE QUANTITIES

These quantities could allow us to produce some early mappings of tapes based on these descriptive words, setting them up, for example, on bi-dimensional spaces such as «ondiola-vs-piano» or «improvised-vs-non-

improvised» and allowing us to browse throughout likelihood properties to uncover hidden similarities or analogies.

Of course, there are also some objective quantities that may turn out to be interesting. One that can be easily retrieved from the data stored in the archive is the number of sections that comprise each tape. By «section» here we mean places in which Scelsi had stopped and re-started a recording. These starts/stops are particularly interesting in improvisations because they may give an idea of how long and profound was the flow of ideas during a specific session, or on the contrary how hard has it been to produce a specific tape.

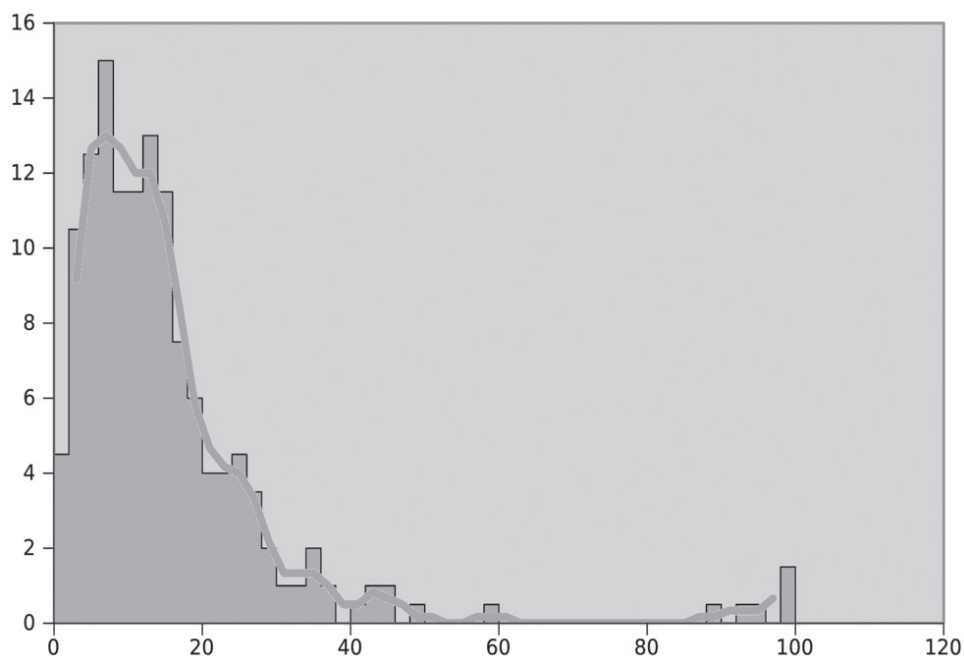


FIG. 3.5: Distribution of the number of edits.

The histogram in FIG. 3.5 describes the distribution of the number of edits amongst all tapes. As may be expected, some numbers occur more frequently than others (e.g. those in the 7–10 range) but it is interesting to notice that some tapes feature much larger figures: 20 edits is not uncommon, and some specific ones push further into the 40–60 range. There are also a few tapes with 100+ edit figures, and these are generally the spoken ones (texts, not music), leading perhaps to think that for Scelsi «thinking in text» was a much more difficult endeavor than «thinking in music».

FUTURE WORK

The materials contained in this paper are really just the tip of the iceberg of what can be done extracting quantitative information from Scelsi's archives. More meaningful results should be obtained by adding other ingredients such as set-theories and statistical analysis. Also, music information retrieval techniques should allow us to discover more relationships hiding behind the wall of the sheer amount of material becoming available. We hope that this paper will work as an 'appetizer' to stimulate further quantity-related research in the archive.